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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/784,120 | 02/20/2004 | Pieter Bots | NHL-NP-44 | 5247 |

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| EXAMINER |
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AHN, SANGWOO

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| ART UNIT | PAPER NUMBER |
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2166

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS | 04/04/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/784,120 | | BOTS ET AL. | |
| | Examiner | | Art Unit | |
| | Sangwoo Ahn | | 2166 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's communication filed on 1/11/2007 has been entered.

Claims 21 – 40 are pending in this Office Action.

Claims 1 – 20 have been canceled.

Claims 21 – 40 have been added.

Response to Arguments

Applicant's arguments with respect to claims 21 - 40 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21, 23 – 25, 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Kokubun.

Regarding claim 21, Kokubun discloses,

A method for monitoring and exchanging data between an external data storage unit and at least one stationary computer unit, the stationary computer unit being connected via at least one connection port and a data connection to the external date

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storage unit (Figure 2, et seq.), and an operating program on the stationary computer unit continuously monitoring the at least one connection port for a data connection to an external data storage unit (paragraph 10: 5 – 6, paragraph 39: 6, et seq.), characterized in that in case of an existing data connection via a connection port, the operating program detects the generation of a voltage pulse by a pulse generator connected to the data connection and located on the external data storage unit (paragraph 41: 4, et seq.) and subsequently initiates a mutual data exchange between the external data storage unit and the stationary computer via the data connection (paragraph 10: 9 – 12, et seq.).

Applicant alleged that Kokubun only shows a docking station that does not have a pulse generator and the whole data exchange procedure is started by the computer, not the docking station. Examiner disagrees with this assertion. In paragraph 41, Kokubun states that the expansion control circuit, which is connected and controlled by the CPU, monitor the attachment/detachment state of the docking station on the basis of **an attachment/detachment detect signal, connection detect signal**, and the like **supplied from the docking station** via the expansion connectors. Pulse generator, given the broadest reasonable interpretation, can be any object or device that generates pulses or signals. It is evident that the signals generated in Kokubun's system are electric pulses. In addition, the claim does not clearly specify whether the whole data exchange procedure is started by the computer or the external unit. The claim merely recites that the pulses are generated by pulse generator located on the external unit and the operating system subsequently initiates a mutual data exchange.

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Regarding claim 23, Kokubun discloses the external storage unit is integrated as an additional data storage drive into the data storage administration of the stationary computer unit (paragraph 41, et seq.).

Regarding claim 24, Kokubun discloses the voltage pulse generated by the pulse generator is temporary stored as a change in a memory log in the data storage unit and is read out at a later point in time by the operating program via the existing data connection, wherein the memory log is initialized with the read out (Figure 5, paragraph 54: 7 – 8, paragraph 65, et seq.).

Claim 25 is rejected based on the same rationale discussed in claim 21 rejection since they are essentially the same except claim 25 set forth the limitation as a computer readable operating program rather than a method.

Regarding claim 34, Kokubun discloses,

said signal generator comprises a pulse generator configured to generate a voltage pulse (paragraph 41, et seq.);

said program comprises an operating program (paragraph 10: 5 – 6, paragraph 39: 6, et seq.);

said computer comprises a stationary computer unit (Figure 2: 10, et seq.); and

said step of monitoring with said program said connection port comprises continuously monitoring with said operating program said connecting port (paragraph 10: 5 – 6, paragraph 39: 6, et seq.).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubun in view of Morioka.

Regarding claim 22, Kokubun discloses all the features of claim 21 and that the data are transferred via the data connection as data packets (paragraph 10: 9 – 12, transferring data in packets is very well-known in the data processing art) (including pulse generator and detection of the voltage pulse).

Kokubun does not explicitly disclose the operating program can simultaneously control the data exchange and detect a voltage pulse generated by the pulse generator.

However, Morioka discloses a system where control of data exchange and detection of signal are carried out simultaneously (column 17: 35 – 39, et seq.). At the time of the present invention, it would have been obvious to a person of ordinary skill in the data processing art to combine the two references because Morioka's method of exchanging data and detecting signal simultaneously would have enabled Kokubun's system to handle/transfer a very large volume of data in a short time, as taught by Morioka.

Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubun in view of McFendries:

Regarding claim 23, Kokubun discloses the method of claim 1.

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Kokubun does not explicitly disclose external storage unit is integrated as an additional data storage drive into the data storage administration of the stationary computer unit (paragraph 41, et seq.).

However, McFendries discloses viewing removable storage and exploring the data contained therein via graphical user interface (Chapter 5, Figure 6.1, et seq.). It would have been obvious to a person of ordinary skill in the data processing art to combine the aforementioned references because McFedries' method of navigation would have enabled Kokubun's system to keep user's data easy-to-find, well maintained and organized. Examiner would also like to note that the feature recited in claim 23 of the instant application is well-known and widely used in the data processing art.

Claims 26 – 29, 35 – 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubun in view of Jones.

Regarding claim 26, Kokubun discloses,

A method of monitoring and exchanging data between an external storage unit and a computer, said computer comprising a connection port, said external data storage unit comprising a connecting device and a signal generator, said method comprising the steps of:

running a program on said computer and monitoring, with said program, said connection port for a signal from said external data storage unit;

operatively connecting said connecting device of said external data storage unit to said connection port of said computer;

signal generator in said external data storage unit and generating a signal;

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detecting with said program the generated signal from said external data storage unit and subsequently initiating a mutual data exchange between said external data storage unit and said computer; and

exchanging data between said external data storage unit and said computer (See claim 21 rejection).

Kokubun does not explicitly disclose "manually actuating, by a physical movement of a user, independently of all other functions and functioning of said computer and subsequent to operatively connecting said external data storage unit to said computer."

However, Jones discloses "manually actuating, by a physical movement of a user, independently of all other functions and functioning of said computer and subsequent to operatively connecting said external data storage unit to said computer" in Figure 9:79 and column 10: 26, 30 – 31. At the time of the present invention, it would have been obvious to a person of ordinary skill in the data processing art to combine the aforementioned references because Jones' pulse generator with a push button would have enabled Kokubun's overall system to provide a simple, time-saving user interface (which also provides a visual indication of the data copying progress) to operate the external data storage and initiate data transfer.

Regarding claim 27, Jones discloses the step of manually actuating said signal generator comprises executing a single, manual stroke (Figure 9:79 and column 10: 26, 30 – 31).

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Regarding claim 28, Jones discloses a push button and a single, manual stroke (Figure 9:79 and column 10: 26, 30 – 31).

Regarding claim 29, Kokubun discloses exchanging data packets (paragraph 10: 9 – 12; transferring data in packets is very well-known in the data processing art).

Regarding claim 35, Jones discloses executing a single, manual stroke (Figure 9:79 and column 10: 26, 30 – 31).

Regarding claim 36, Jones discloses a push button, and pushing said push button in a single, manual stroke (Figure 9:79 and column 10: 26, 30 – 31).

Claims 30 – 32, 37 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubun and Jones, further in view of Morioka.

Regarding claim 30, Kokubun and Jones disclose the method as claimed in claim 29.

Kokubun and Jones do not explicitly disclose simultaneously controlling the exchange of data and monitoring and detecting an additional signal generated.

However, Morioka discloses the aforementioned feature in column 17: 35 – 39, et seq. At the time of the present invention, it would have been obvious to a person of ordinary skill in the data processing art to combine the 4 references because Morioka's method of exchanging data and detecting signal simultaneously would have enabled the overall system to handle/transfer a very large volume of data in a short time, as taught by Morioka.

Regarding claim 31, Kokubun, Jones and Morioka discloses,

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during the exchanging of data, continuing monitoring with said program said connection port for an additional signal from said external data storage unit, and, upon the generation of a signal by manual actuation of said signal generator, detecting the signal in between the transfer of two sequential data packets (Kokubun, paragraph 41: 4 and Morioka, column 17 lines 35 – 39, et seq.); and

synchronizing data of a pre-defined hard drive area of said computer with data of said external data storage unit (Kokubun, paragraph 10: 9 – 12, 49: 1 – 7, et seq.).

Examiner would also like to note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding claim 32, Kokubun discloses,

said signal generator is accessed by said program in the stationary computer unit as a virtual drive, the virtual drive not being used as a traditional drive, but selected communication commands for the control of the virtual drive by the operating program are automatically transformed for monitoring a voltage pulse triggered at the pulse generator, wherein said signal generator is accessible as a virtual drive only by said program and is not integrated into the data storage administration of the stationary computer unit (paragraph 41, et seq.);

said connecting device comprises one of: a USB cable, a FireWire cable, a CardBus, a PC card, a parallel cable, a serial cable, or an infrared device, to permit

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connection with a corresponding connection port of a computer (Figure 2: 14, et seq., use of these connecting devices are very well-known in the art);

temporarily storing the signal generated by said signal generator as a change in a memory log in said data storage unit;

reading out the signal at a later point in time with said program; and

newly initializing said memory log with the read out (Figure 5, paragraph 54: 7 – 8, paragraph 65, et seq.).

Jones discloses,

activating an optical indicator to provide a visual indication to a user that data is being exchanged, said optical indicator comprising a light-emitting device (column 10 lines 25 – 40, et seq.).

Regarding claim 37, Kokubun, Jones and Morioka discloses,

Exchanging data packets (Kokubun: paragraph 10: 9 – 12, transferring data in packets is very well-known in the data processing art); and

simultaneously controlling the exchange of data and monitor and detect an additional signal generated by said signal generator (Morioka: column 17: 35 – 39, et seq.).

Regarding claim 38, Kokubun, Jones and Morioka discloses,

during the exchanging of data, continuing monitoring with said program said connection port for an additional signal from said external data storage unit, and, upon the generation of a signal by manual actuation of said signal generator, detecting the

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signal in between the transfer of two sequential data packets (Kokubun, paragraph 41: 4 and Morioka, column 17 lines 35 – 39, et seq.); and

synchronizing data of a pre-defined hard drive area of said computer with data of said external data storage unit (Kokubun, paragraph 10: 9 – 12, 49: 1 – 7, et seq.).

Regarding claim 39, Kokubun discloses,

said signal generator is accessed by said program in the stationary computer unit as a virtual drive, the virtual drive not being used as a traditional drive, but selected communication commands for the control of the virtual drive by the operating program are automatically transformed for monitoring a voltage pulse triggered at the pulse generator, wherein said signal generator is accessible as a virtual drive only by said program and is not integrated into the data storage administration of the stationary computer unit (paragraph 41, et seq.);

said connecting device comprises one of: a USB cable, a FireWire cable, a CardBus, a PC card, a parallel cable, a serial cable, or an infrared device, to permit connection with a corresponding connection port of a computer (Figure 2: 14, et seq., use of these connecting devices are very well-known in the art);

Jones discloses,

activating an optical indicator to provide a visual indication to a user that data is being exchanged, said optical indicator comprising a light-emitting device (column 10 lines 25 – 40, et seq.).

Kokubun discloses,

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temporary stored as a change in a memory log in the data storage unit and is read out at a later point with said program and newly initializing said memory log with the read out (Figure 5, paragraph 54: 7 – 8, paragraph 65, et seq.).

Regarding claim 40, Kokubun discloses,

the external storage unit is integrated as an additional data storage drive into the data storage administration of said computer (paragraph 41, et seq.);

said connecting device comprises one of: a USB cable, a FireWire cable, a CardBus, a PC card, a parallel cable, a serial cable, or an infrared device, to permit connection with a corresponding connection port of a computer (Figure 2: 14, et seq., use of these connecting devices are very well-known in the art);

temporarily storing the signal generated by said signal generator as a change in a memory log in said data storage unit;

reading out the signal at a later point in time with said program; and

newly initializing said memory log with the read out (Figure 5, paragraph 54: 7 – 8, paragraph 65, et seq.).

Jones discloses,

activating an optical indicator to provide a visual indication to a user that data is being exchanged, said optical indicator comprising a light-emitting device (column 10 lines 25 – 40, et seq.).

Claims 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kokubun, Jones and Morioka, further in view of McFedries.

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Regarding claim 33, Kokubun, Jones and Morioka discloses the method of claim 31 and,

Kokubun discloses,

said signal generator is accessed by said program in the stationary computer unit as a virtual drive, the virtual drive not being used as a traditional drive, but selected communication commands for the control of the virtual drive by the operating program are automatically transformed for monitoring a voltage pulse triggered at the pulse generator, wherein said signal generator is accessible as a virtual drive only by said program and is not integrated into the data storage administration of the stationary computer unit (paragraph 41, et seq.);

said connecting device comprises one of: a USB cable, a FireWire cable, a CardBus, a PC card, a parallel cable, a serial cable, or an infrared device, to permit connection with a corresponding connection port of a computer (Figure 2: 14, et seq., use of these connecting devices are very well-known in the art);

temporarily storing the signal generated by said signal generator as a change in a memory log in said data storage unit;

reading out the signal at a later point in time with said program; and

newly initializing said memory log with the read out (Figure 5, paragraph 54: 7 – 8, paragraph 65, et seq.):

Jones discloses,

activating an optical indicator to provide a visual indication to a user that data is being exchanged, said optical indicator comprising a light-emitting device (column 10 lines 25 – 40, et seq.).

Kokubun, Jones and Morioka do not explicitly disclose external storage unit is integrated as an additional data storage drive into the data storage administration of the stationary computer unit.

However, McFendries discloses viewing removable storage and exploring the data contained therein via graphical user interface (Chapter 5, Figure 6.1, et seq.). It would have been obvious to a person of ordinary skill in the data processing art to combine the aforementioned references because McFedries' method of navigation would have enabled the overall system to keep user's data easy-to-find, well maintained and organized.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sangwoo Ahn whose telephone number is (571) 272-5626. The examiner can normally be reached on M-F 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner Sangwoo Ahn
AU 2166

3/28/2007 SW


MOHAMMAD ALI
PRIMARY EXAMINER